

Amendments to the Specification

Please replace paragraphs [0026] and [0027] with the following amended paragraphs:

[0026] Figure 10 is a schematic diagram of the timing and switching circuit for the coil of the electromagnetic fuel pump; and,

[0027] Figures 11A – 11C depict rest, filling, and dispensing stages, respectively, of the electromagnetic fuel pump of the present invention. [[; and,]]

Please replace paragraph [0032] with the following amended paragraph:

[0032] Alternatively, Figure 2b illustrates pump 90 configured to comprise threaded inlet 92 and threaded outlet ports 94 adapted for threadably inserting and removing threaded nipples 96 from housing 22 as may be desired, as for instance, to change the size of the nipples. In some aspects, housing 22 is a two piece housing made of a first material. A first piece, body 22, of the two piece housing includes threaded insert inlet port 92 and a second piece, cap 30, of the two piece housing includes threaded insert outlet port 94. The insert inlet and outlet ports are made of a second material.

Please replace paragraphs [0037] and [0038] with the following amended paragraphs:

[0037] Operatively arranged about the outside of tube 36 is first EM cap 38, shield 40, bobbin 42, coil 43, second EM cap 54, and circuit board 44. Circuit board 44, in combination with coil 43 and power leads 32 form drive circuit 80 (See Figure 10). Coil 43 comprises a single strand of wire wound about bobbin 42. Coil 43 is operatively arranged to create an electromagnetic force when energized to attract plunger 50 against the force of spring 52 to its center of magnetic mass. First and second EM caps 38 and 54, respectively, along with shield 40 are formed from metal and comprise an enclosure for providing a closed EM loop circuit. The metal enclosure is positioned between housing 22 and end cap 30, and electrical circuit 80 (See Figure 10). By encapsulating the electrical components within a metal shield, the emission of

EMI is prevented. In a preferred embodiment the metal enclosure is fabricated from sheet metal. In some aspects, metal shield 40 is a metallic conformal coating within housing 22.

[0038] Figure 10 illustrates drive circuit 80 for the electromagnetic pump of the invention. In a preferred embodiment, the components of drive circuit 80 are surface mounted on printed circuit board 44, which is mounted on the coil via conductive-pinned bobbin assembly within housing 22. Circuit 80 includes electronic switching circuitry for controlling electromagnetic coil 43. The circuit broadly comprises U1, a 555 timer or equivalent, operatively arranged to MOSFET SMT switch Q1 which comprises a 15A, 60V, N-Channel, (55 deg C / +175 Deg C) DPAK. In a preferred embodiment, R2 and R3 are selected, as is well known in the art, such that the timer controls Q1 to a 70ms period with "On" time of approximately 25 ms, and an "Off" time of approximately 45 ms. When MOSFET Q1 is turned "On" (25ms), coil 43 is energized and attracts the plunger against spring 52. When MOSFET Q1 is turned "Off" (45ms) coil 43 discharges through R4/D3 and spring 52 returns plunger 50 to its point of origin. In a preferred embodiment, coil 43 is made of 21 gauge magnet wire and is a 2 mH inductor with a resistance of 1.4 ohms. Circuit 80 also includes surge suppression Zener diode D2 which protects the circuit against voltage overloads. Diode D1 functions as a polarity restrictor; D2 as overload protection; and D3 and R4 functions to direct and suppress the discharge current of the coil.